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10/551,238	09/28/2005	Hideto Kamimura	278507US0PCT	4244
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
GOLOBOY, JAMES C				
ART UNIT		PAPER NUMBER		
1797				
NOTIFICATION DATE		DELIVERY MODE		
02/03/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/551,238

Applicant(s)

KAMIMURA ET AL.

Examiner

James Goloboy

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendments filed 11/3/08 overcome the rejections set forth in the office action mailed 5/1/08. New grounds of rejections necessitated by the rejection are set forth below.

Claim Rejections - 35 USC § 103

2. Claims 1-3, 6-7, 11, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suekuni in light of the evidence provided by KIC Chemicals (<http://www.kicgroup.com/dos.htm>).

In column 1 lines 5-7, Suekuni discloses a conductive lubricant. In column 1 lines 58-64, Suekuni discloses that the lubricant comprises an ester base oil and from 0.1 to 5% by weight of an antistatic additive. In column 2 lines 51-64 Suekuni discloses that the ester base oil can be dioctyl sebacate, an ester as recited in claim 6, which has a viscosity and overlapping the ranges recited in claims 1-2, a viscosity index within the range recited in claim 1 and encompassing the range recited in claim 3, and a flash point of 215° C, within the range recited in claim 1. Dioctyl sebacate also meets the limitations of the diester of a dibasic acid and a monohydric alcohol of claim 7. While Suekuni does not explicitly disclose the volume resistivity of the composition, it is clear from column 1 lines 30-42 (where an oil with a resistivity of 1.2×10^9 ohm·cm is said to have a disadvantageously high resistivity) and the characterization of the lubricant as a conductive lubricant that the volume resistivity of the composition meets the limitation of claim 1. In column 3 lines 48-56, Suekuni discloses that the antistatic additive can be an

amine derivative, as recited in claims 5 and 11. In column 2 lines 53-54 Suekuni discloses that the composition can contain an antioxidant, as recited in claim 14, and in column 1 lines 5-7 Suekuni discloses that the composition is a bearing oil, as recited in claim 15.

Suekuni does not disclose the pour point of the composition. However, KIC Chemicals discloses that the pour point of the dioctyl sebacate base oil of Suekuni is -62° C. The composition of Suekuni will therefore meet the pour point limitation of the claims.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suekuni in view of Tagliamonte in light of the evidence provided by KIC Chemicals (<http://www.kicgroup.com/dos.htm>).

The discussion of Suekuni and KIC Chemicals in paragraph 2 above is incorporated here by reference. Suekuni discloses a composition meeting the limitations of claim 11, but does not disclose a composition further comprising a condensate of tetraethylenepentamine and a fatty acid.

In column 2 lines 28-34, Tagliamonte discloses a lubricating composition comprising a friction modifier. In column 8 lines 43-46 Tagliamonte discloses that a preferred friction modifier is the reaction product of tetraethylenepentamines and isostearic acid, meeting the limitations of the amine derivative of claim 12. While Tagliamonte discloses the compound as a friction modifier rather than an antistatic agent, the compound is capable of acting as an antistatic agent and therefore meets the

limitations of claim 12. In column 9 lines 24-29, Tagliamonte discloses that the composition preferably comprises 0.25 to 0.75% by weight of the friction modifier, within the range recited for the amine derivative of claim 12. The addition of the tetraethylenepentamine/isostearic acid condensate of Tagliamonte to the composition of Suekuni therefore meets the limitations of claim 12.

It would have been obvious to one of ordinary skill in the art to include the tetraethylenepentamine/isostearic acid condensate of Tagliamonte in the composition of Suekuni, in order to adjust the frictional performance of the bearing being lubricated by the composition.

4. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suekuni in view of Baba (WO 02/079358) in light of the evidence provided by KIC Chemicals.

The discussion of Suekuni in paragraph 3 above is incorporated here by reference. Suekuni discloses a bearing oil composition meeting the limitations of claim 1 but not further containing the reaction product of tetraethylenepentamine and stearic acid.

Baba, from page 1 line 28 through page 2 line 3, discloses a lubricating composition having excellent anti-rust properties. On page 15 lines 22-25, Baba discloses that the composition can be a bearing oil. On page 2 lines 24-26 Baba discloses that the composition comprises a polyalkylenepolyamide. In the examples on pages 17-21, Baba discloses polyalkylenepolyamides that are the reaction product of

tetraethylenepentamine with mixtures of stearic and isostearic acid. These products therefore contain the additive recited in claims 17-18, and the addition of the additive mixture of Baba to the composition of Suekuni meets the limitations of the claim.

It would have been obvious to one of ordinary skill in the art to include the additive mixture of Baba in the composition of Suekuni, as Baba teaches that it is an effective antirust additive for bearing oil compositions.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suekuni in view of Papay (U.S. Pat. No. 5,652,201) in light of the evidence provided by KIC Chemicals.

The discussion of Suekuni in paragraph 2 above is incorporated here by reference. Suekuni discloses a composition meeting the limitations of claim 1 but does not further disclose the inclusion of a phosphate-based friction modifier.

Papay, from column 46 line 51 through column 47 line 12, discloses suitable friction modifiers for use in lubricating compositions. In column 47 line 2, Papay discloses aliphatic phosphates, meeting the limitations of claim 19, as a friction modifier.

It would have been obvious to one of ordinary skill in the art to include the phosphate friction modifier of Papay in the composition of Suekuni, to adjust the friction between the lubricated parts.

6. Claims 1-3, 6, 8, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denpo in view of Bialas (U.S. Pat. No. 5,478,485).

An English machine translation of Denpo, which is attached, has been used in setting forth this rejection. In paragraph 7, Denpo discloses a rolling device covered in a conductive lubricating oil with a volume resistivity below 1×10^7 ohm-cm, within the range recited in claim 1. In paragraph 14, Denpo discloses that the lubricating oil can be an ester, as recited in claim 6, or an ether, as recited in claim 8. While Denpo does not specifically disclose the viscosity, viscosity index, pour point, or flash point of the lubricating oil, Denpo does disclose in paragraph 14 that the choice of lubricating oil is not particularly limited, and therefore implicitly discloses ranges of viscosities, viscosity indices, pour points, and flash points encompassing the claimed ranges. In paragraph 10 Denpo discloses that the composition contains a surfactant which is effective as an antistatic agent, but does not disclose the specific antistatic agents recited in amended claim 1.

Bialas, in column 7 line 54 through column 8 line 33, teaches that antistatic agents for lubricants can be surfactants, including glycerol mono- or dioleates (column 7 lines 56-57) which are polyhydric alcohol partial esters as recited in amended claim 1, sulfosuccinates (column 8 lines 26-28), which are succinic acid derivatives as recited in amended claim 1 and newly added claim 16. The use of these surfactants/antistatic agents of Bialas in the composition of Denpo meets the limitations of claims 1-3, 6, 8, and 13.

It would have been obvious to one of ordinary skill in the art to include the surfactants/antistatic agents of Bialas in the composition of Denpo, as Bialas teaches that they are suitable antistatic agents for lubricating compositions.

7. Claims 1, 4, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denpo in view of Bialas as applied to claims 1-3, 6, 8, and 13 above, and further in view of Egawa.

The discussion of Denpo and Bialas in paragraph 6 above is incorporated here by reference. Denpo and Bialas disclose a composition meeting the limitations of claim 8, but does not disclose specific suitable ethers.

An English translation of Egawa, which is attached, has been used in setting forth this rejection. Egawa, in paragraphs 6-7, discloses an ether base oil which meets the limitations of the ethers of claims 9-10 when n is 0 (claim 10), or 0-8 (claim 9). Egawa discloses that the viscosity index is 150 or more, within the range recited in claim 1, and that the pour point is less than -10°C , encompassing the range recited in claim 4.

It would have been obvious to one of ordinary skill in the art to use the ether of Egawa as the lubricating oil of Denpo and Bialas as Egawa teaches that it is a suitable ether lubricating oil.

8. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denpo in view of Bialas as applied to claims 1-3, 6, 8, and 13 above, and further in view of Baba.

The discussion of Denpo in paragraph 6 above is incorporated here by reference. Denpo discloses a bearing oil composition meeting the limitations of claim 1 but not further containing the reaction product of tetraethylenepentamine and stearic acid.

Baba, from page 1 line 28 through page 2 line 3, discloses a lubricating composition having excellent anti-rust properties. On page 15 lines 22-25, Baba discloses that the composition can be a bearing oil. On page 2 lines 24-26 Baba discloses that the composition comprises a polyalkylenepolyamide. In the examples on pages 17-21, Baba discloses polyalkylenepolyamides that are the reaction product of tetraethylenepentamine with mixtures of stearic and isostearic acid. These products therefore contain the additive recited in claims 17-18, and the addition of the additive mixture of Baba to the composition of Denpo meets the limitations of the claim.

It would have been obvious to one of ordinary skill in the art to include the additive mixture of Baba in the composition of Denpo, as Baba teaches that it is an effective antirust additive for bearing oil compositions.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Denpo in view of Bialas as applied to claims 1-3, 6, 8, and 13 above, and further in view of Papay (U.S. Pat. No. 5,652,201).

The discussion of Denpo in paragraph 6 above is incorporated here by reference. Denpo discloses a composition meeting the limitations of claim 1 but does not further disclose the inclusion of a phosphate-based friction modifier.

Papay, from column 46 line 51 through column 47 line 12, discloses suitable friction modifiers for use in lubricating compositions. In column 47 line 2, Papay discloses aliphatic phosphates, meeting the limitations of claim 19, as a friction modifier.

It would have been obvious to one of ordinary skill in the art to include the phosphate friction modifier of Papay in the composition of Denpo, to adjust the friction between the lubricated parts.

Response to Arguments

10. Applicant's arguments have been considered but are moot in view of the new grounds of rejection. The newly added references address the limitations introduced by the amendments, as discussed above.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/
Acting SPE of Art Unit 1797